

The Builder.

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SATURDAY, JANUARY 26, 1850.



ARL DE GREY presided on the 21st at a very full meeting of members of the Institute of British Architects and visitors, when, amongst other matters, letters were communicated from corresponding fellows at Vicenza and Naples, acknowledging the honour of their election, and offering to afford facilities to members visiting their cities, with letters from the honorary secretary.*

Mr. Donaldson read a paper by Mr. H. Roberts, "On the Arrangement and Construction of the Dwellings of the Labouring Classes." Referring briefly to the overcrowded state of parts not merely of the metropolis, but of our provincial towns, the writer commenced with some general observations on points to be attended to in the construction of such dwellings:—they should be dry and well-ventilated; the principal living room should contain not less than 140 feet superficial area, and the parents' bed-room 100 feet. The height of the rooms in the country should not be less than from 7 feet 6 inches to 8 feet; and in towns 9 feet. Every room should have an opening near the ceiling for the escape of vitiated air: his experience was not favourable to Arnott's valves in the smoke flues; he preferred constructing a distinct flue; he had found the smoke otherwise return into the rooms. An enclosed porch was advantageous; if the windows had casements (for which zinc was the best material), they should open outwards, as it was otherwise difficult to keep out the rain. Commencing, then, with the establishment of "The Society for Improving the condition of the Labouring Classes" in 1844, he described *seriatim* the buildings erected by that society in the Bagnigge Wells-road, the model lodging-houses in Charles-street, — George-street, St. Giles's, — Hatton-garden, and Streatham-street, Bloomsbury; the Birkenhead-buildings; the buildings in St. Pancras; by the "Society for the Improvement of Workmen's Dwellings;" the Artisan's Home, Spicer-street; and Lumsden's Model Houses in Glasgow;—every one of which has been already fully described and illustrated in our pages. In the George-street Lodging-house, he mentioned, as proof of the effect of improved dwellings on health, that there was not a single case of cholera amongst the 104 inmates. The Streatham-street house has external galleries around a quadrangle, approached by a common staircase, by which arrangement, as we understood the paper, 70l. or 80l. per annum were saved in window taxes. The floors here are of tile arches: the extra cost of thus fire-proofing was only 12 shillings per cent. over the cost of ordinary construction.

The society, he said, propose erecting another pile of town-buildings with funds provided by thanksgiving offerings. The arrangement of the Birkenhead-buildings was very objectionable: when he visited them they were tenantless, which he attributed to their gloomy appearance, through being constructed in rows so close that the sun could not penetrate. For the St. Pancras building 152l. per annum are paid for window taxes. In Lumsden's buildings, Glasgow, there is one window where there ought to have been three, and probably would have been but for the window tax.

The writer then proceeded to speak of labourers' cottages in the country, and quoted a passage from Mr. Dixon's "Life of Howard" already pointed out by us, as showing how much improvement may be effected by one man.

As to the design to which the Royal Agricultural Society had awarded their offered premium of 50l., and which is engraved in the last July number of their journal, all he would say was, with one competent writer who had reviewed it, that he hoped no such cottages would be erected.

The recommendations to be attended to in building labourers' cottages, the writer said, are a dry foundation—gravel is better than clay,—good water,—southern aspect. Every cottage should stand on one-eighth of an acre of land. The water well should be away from the drains and manure tank,—the latter should always be provided. The materials depend on the locality. If 9-inch brick walls be used, they should be hollow, and would thus be both drier and warmer. He had used a wedge-shaped hollow brick, made by the tile machine; nine of these fill the same cubic space as sixteen stocks: 25 per cent. of mortar is also saved. Chalk, hardened with silicate of potash, may be used for walls. If of concrete, walls should be 12 inches thick; if of stone, 19 inches. Partitions should be of brick: tiles for the roof are better than slates: hollow bricks make the best floors. An air-flue should be formed for ventilation, and the upper room may be warmed by a 2½-inch pipe from the fire below. The omission of inside plastering on the walls he considered saves nothing, as it necessitates better brickwork, and it gives an appearance of discomfort. A tank should be formed to receive the water from the roof, and when it is desirable to disguise the outbuildings this may be done, *inter alia*, by casing them with split logs, with upright logs at the angles, thus giving them the appearance of a wood-stack.

Mr. Sydney Smirke, at the close of the paper, made some observations on the subject. The improvement of the dwellings of the poor was not a new consideration with him; it was his hobby before it was so publicly mooted as now; and he was first led to entertain the idea that houses for the poor might be profitably erected, on hearing that an individual who enjoyed the luxury of a private carriage, and was giving his son a university education, did so on the profits of some low lodging-houses in St. Giles's. The poor pay more than the rich for lodging and food; from Bond-street to Cheapside a more extravagant shop could not be found than the chandler's, where the poor obtained their food. These shop-keepers were real political economists; they bought in the cheapest markets and sold in the dearest. Truly the poor fleeced the poor; and it was incumbent on the more affluent classes to secure for them food and lodging on fair terms. The latter seemed in a fair way of being obtained.

As to the former, he did not propose that a shop should be opened by charity to compete with private traders, but he did think that in every parish it would be well to have a Store, where the staple commodities of the poor might be sold at prime cost, to such as obtained certificates that they were really necessitous objects. The commodities obtained here would serve them as a standard of goodness. As to the construction of houses for the poor, it must be admitted that the poor were, as a class, destructive tenants. All the fittings should be as indestructible as possible. He was decidedly opposed to the use of internal plastering: it was speedily broken, and gave a dilapidated appearance. Cast-iron plates should be substituted for stone hearths, and the locks and fastenings should be simple and strong: a new lock for the purpose was needed.

In reply to a question by Mr. Mayhew, as to the price of the hollow bricks mentioned in the paper, and the means of cutting them, Mr. Roberts said they might be made in the country, he thought, for 40s. per thousand, and in some parts for 30s., exclusive of duty. In Streatham-street, where he had used them, no duty had been paid, because they were employed merely for the roof and the floors; if used in walls they would pay duty. In order to cut them, a certain number should be impressed by a string where the division was needed, before burning.

Mr. Chadwick remarked—let the size of bricks be what it might, they would pay only double duty.* He doubted the statement that floors and roofs constructed of tiles would be more expensive than by the common mode, and said Mr. Rawlinson had made calculations, shewing the former would be cheaper.

Mr. Rawlinson said he had recently been through the northern districts of England, and had found that, through the publication in THE BUILDER of a paper he had read before the Institute some time since, on hollow bricks, attempts at hollow construction were being made in various places. The difficulties were purely imaginary, both as to making and cutting the bricks. If not marked in the way mentioned, they might be cut at any part, by a slater's pick. The hollow bricks might be made at 30s. per thousand, exclusive of duty, and each would fill the place of three common bricks. The enforcement of duty stood greatly in the way of improvement. For cottage floors these hollow bricks were invaluable.

Capt. Buller, a visitor, said that he had built some cottages at 100l. a pair, with hollow tiles. He found that the joints of 6-inch hollow walls would not keep out driving rains. The hollow tiles made very dry floors, but had the disadvantage, in his case, of harbouring ants. The tiles cost him in making 50s. a thousand: each occupied the place of four common bricks.

Mr. Godwin said, a very important fact had been brought before them incidentally in the course of the paper, and ought not to be passed over: he meant the very injurious results of the tax on light. They had been told of one building erected by the charitable for the improvement of the health of the poor, paying 160l. per annum window duty! and of another where proper ventilation had not been provided because of this most injurious imposition. It was not necessary to point out its evil effects to any there; they knew from their own practice that it interfered with design, with con-

* A "chambered brick" was exhibited, which filled the place of three common bricks, and some one said this was truly a "closer."

* Amongst the visitors in addition to those mentioned as present in the proceedings were,—Sir James Clark, Arnott, Mr. J. C. Colquhoun, Dr. Milroy, Major General Dr. Quin, Messrs. Austin, Bridges, J. Christian, W. C. H. Smith, Snell, H. Epton, Copland, Fogg, J. Dillan, Hudson, Lloyd, Robins, Wales, Hampshire, Messrs. Hepburn, McE, Kildrup, Porter, Higginbotham, Grainger, Scargill, Linton, Rogers, Robinson, Philo, C. H. Griffith, Quin, &c. &c. Amongst the members present were Messrs. Scoles, Bellamy, Nelson, Donnan, Mordaunt, Parker, Knowles, Kendall, A. McC. Macmillan, Wray, Thomson, Heathcote, Salvin, Major-General C. Pasley, Messrs. Woodhouse, Jennings, Leckner, Pannan, Turgill, Scott, Angel, Barry, W. F. Cole, Eales, Gibson, Beck, Bull, Shier, W. P. Freeman, Williams, Clayton, Oliver, Judge, James, Goring, Howell, Burnell, Nichol, Reneker, Billings, and Randall.